Department of Justice
High-Risk Metropolitan Area Interoperability Assistance Project
San Francisco, California

Addressing Interoperability

The Department of Justice (DOJ) Wireless Management Office (WMO) is working to improve long-term federal interagency communications across the Nation. As an interim step, and as a response to a request from the House/Senate CJS Appropriations Subcommittee staff, the DOJ WMO has been leading the High-Risk Metropolitan Area Interoperability Assistance Project to provide targeted cities with basic and immediate interagency communications capabilities among local, state, and federal agencies during emergency response. Twenty-five cities were selected using criteria that included perceived risk and population size. As stakeholders in 1 of the 25 cities, San Francisco metropolitan area local, state, and federal public safety agencies have been working collaboratively with the DOJ WMO to address basic interoperable communications.

Participating Agencies

Partnership among San Francisco area local, state, and federal public safety agencies has been instrumental in the development of comprehensive interoperability solution sets. Participating agencies have included—

- Bay Area Rapid Transit
- Bureau of Alcohol, Tobacco, Firearms, and Explosives
- California Highway Patrol
- California Office of Emergency Services (OES)
- Federal Bureau of Investigation (FBI)
- Lawrence Livermore National Labs
- National Park Service
- Oakland County
- San Francisco Emergency Medical Services
- San Francisco Fire Department
- San Francisco Police Department
- San Francisco Sheriff's Office
- San Mateo County
- U.S. Coast Guard
- U.S. Customs and Border Protection
- U.S. Drug Enforcement Administration
- U.S. Forest Service
- U.S. Marshals Service
- U.S. Secret Service

Key Successes

DOJ and area stakeholders will achieve basic interoperability and emergency response communications improvements in the San Francisco metropolitan area through the implementation of two interoperability solutions. The solutions leverage existing disparate communications systems and add new interoperability capabilities. The two interagency communications solutions implemented in the San Francisco metropolitan area meet immediate interoperability requirements and provide a communications platform to support future growth. Additionally, in the course of meeting this project's interoperability goals, local, state, and federal stakeholders are able to foster working relationships to resolve interoperability objectives for the area.

DOJ is in the process of implementing a SmartLink Internet Protocol (IP) based audio gateway switch crossbanding a five-channel system and a two-channel repeater system. The first solution aims to promote local, state, and federal interoperability through the implementation of five new crossband repeater stations at a strategic San Francisco Bay area site. Three of the repeater stations use existing state and local interoperability frequencies in the very high frequency (VHF) low, ultra high frequency (UHF)-T, and 800 megahertz frequency bands. Two new digital, narrowband interoperability frequencies in the VHF High and UHF federal government frequency bands complete the five-channel system. Additionally, remote monitor and control or network management responsibilities are shared between the San Francisco Emergency Communications Department (ECD) and the FBI. The crossband configurations include an "always on" mode. Network management responsibilities include the flexibility to de-select one or more repeaters involved in a patch.

To promote federal interdepartmental interoperability, DOJ also implemented two crossband digital narrowband repeater channels in the VHF High and UHF government frequency bands. Additionally, the repeaters can securely transmit voice communications from the digital narrowband stations in either the data encryption standard (DES)–output feedback (OFB) or advanced encryption standard (AES) modes. Encryption and decryption are performed only at the FBI console. The IP-based gateway switch's intelligence prevents the rebroadcast of secure communications over a non-secure channel even when the repeaters are crossbanded.

While primarily reserved for communications among command and control personnel during emergency responses, agents with correctly programmed radios can initiate a call for support or be directed to switch to the interoperability crossband network to receive additional emergency response instructions.

DOJ provided input and guidance on the Bay Area Regional Tactical Communications System (BARTCS) operations document. A sample document of standard operating procedures was provided to local stakeholders to address rules of use for operating on the interoperability channels. San Francisco Bay area agencies continue to meet to update documentation and discuss interoperability efforts in the metropolitan area.

Moving Forward

The cooperation and support between participating agencies and DOJ WMO provided scalable solutions designed to give local and state agencies future access to interoperability solutions. Sustained operations, maintenance, and support of this interoperability solution will be coordinated by key stakeholders. These efforts, along with stakeholder support and long-term interoperability planning, will ensure continuity in addressing interoperable communications among public safety agencies in the San Francisco metropolitan area.

Contact Information

If you would like to know more about this initiative and the interoperability solutions, please contact—

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